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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,196	10/08/2003	Takashi Sasaki	3673-0158P	5408

2292 7590 02/10/2005

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EXAMINER

GORDON, RAEANN

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/680,196	SASAKI ET AL.	
	Examiner	Art Unit	
	Raeann Gorden	3711	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10-8-03</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Umezawa et al (2003/0060307) in view of Kasashima et al (6,241,627). Regarding claim 1, Umewaza discloses a golf ball comprising a core and a cover made from a thermoplastic polyurethane elastomer [0052]. The cover has a Shore D hardness from 44-56 [0058]. The golf ball has a diameter of 42.67 mm and has from 360-460 dimples on the surface of the ball [0071]. Umewaza discloses no particular limits are imposed on the total number of dimples, shape, size, and type. Kasashima teaches a dimple pattern comprising from 80 to 95%. The largest dimple has a maximum diameter of 5.0 mm (col. 4). R1 may therefore equal up to 11.7% or from 11-11.7% assuming a diameter range from 4.7 to 5.0 mm (col. 4, lines 35-40). Regarding claim 2, the total number of dimples with an R1 value from 11-11.7% is 240 (dimple 3 of figure 2) (col. 4). The total number of dimples is 420. R2 equals 57% (240/420). Regarding claim 3, the occupation ratio, y, from 0.19% to 0.226% with the surface area coverage from 80-95%. Regarding claim 4, Kasashima discloses three sets of dimples (fig 2) with different diameters. The total number of dimples is 420. Dimple 3, the largest, includes 240,

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dimple 2 includes 120, and dimple 3 (smallest) includes 60. Dimple 1 has a diameter from 2.0 to 4.0 mm while dimples 2 and 3 have a diameter 3.0 to 5.0 mm. Implementing the smallest possible values for dimples 1 and 2 (2.0 and 3.0, respectively) and from 4.7 to 5.0 mm for the largest dimple, 3, as noted above renders the following X: 5049 to 5275. This range may be lower than  $38.82 * Y + 1495$  or implementing 80-95%, Y, equals 4600-5183. Regarding claim, Umewaza discloses an intermediate layer with a hardness value higher than the cover hardness by at least 7 [0059]. One of ordinary skill in the art would have modified Umewaza with the dimple pattern of Kasashima for enhanced flight performance.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raeann Gorden whose telephone number is 571-272-4409. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 571-272-4415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rg  
February 7, 2005



RAEANN GORDEN  
PRIMARY EXAMINER